

# Financial Advisors, Financial Literacy, Payday Lending, and Bankruptcy

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**ABSTRACT:** As the biblical definition of usury changed and cultural norms associated with incurring personal debt evolved, more financial options developed to meet increased demand. American consumer culture has evolved to promote a liberal use of credit. In particular, sub-prime debt instruments, such as payday lending, have been scrutinized because of excessive borrowing rates. We use state-level macroeconomic data and analyze the effect financial advisors have on payday lending regulation, maximum finance charges, and payday lending usage rates. Our results show payday lending is more heavily regulated, and maximum finance charges and payday lending usage rates are lower in states with a higher per-capita number of financial advisors. These findings suggest financial advisors are an important channel for improving financial literacy in their communities.

**KEYWORDS:** Payday lending, financial literacy, consumer debt, usury  
JEL Codes: G28, G21, I24

## INTRODUCTION

The financial crisis now referred to as The Great Recession took a great toll on many in the United States. In addition to maximizing mortgages to consume as much housing as possible, many Americans were indebted in numerous other ways. This included any combination of credit card debt, car loans, and installment loans. In the early part of 2008, Americans had more than \$2.5 trillion in outstanding consumer debt, not including mortgage-related debt of nearly \$10 trillion (Federal Reserve, 2014). Access to widely available credit gave families the ability to live an enhanced lifestyle for many years. However, the ease and comfort that many felt at borrowing high amounts relative to their net worth is a relatively new phenomena. Historically, the social stigma associated with personal and household indebtedness discouraged excessive borrowing except for impoverished people in dire situations. Recall the scene from the motion picture based on Harper Lee's *To Kill a Mockingbird* when Atticus Finch

explains to his daughter the reason Mr. Cunningham left hickory nuts at their back door was due to his shame at being indebted for legal services. As social stigmas about debt evolved throughout the 20th century, more and more people were able to get access to credit and found the willingness to use it. Meanwhile, the financial services industry developed a number of innovative products to meet this growing demand for consumer credit, and one of the costliest forms of borrowing is payday lending.

Based on an observation of the changing social perceptions of consumer debt in the United States, we investigate how financial advisors influence consumer bankruptcy on a per state basis. In particular, we study the link between bankruptcy and payday lending and explore financial advising as a vocation, the impact of advisors on financial literacy, and the use of payday lending in their communities.

Saunders (2016a) suggests payday lending is one of several "unhealthy business practices" that have emerged in finance. We see the role of financial advisor as a voca-

tion, a calling to help consumers manage their finances and avoid some of the most common financial pitfalls such as credit extension. Asher (2015) suggests vocation (and career) is more than just making money; classical virtues such as justice, and thus integrity, must be the “foundation of a profession and professional behavior.” Payday lending, for example, might be considered excessive rent-seeking and thus an injustice to society. Financial advisors then would be called to actively serve “society’s needs” by working to eradicate social injustices pertaining to the field of finance. There are several important findings of our work that have not been previously discussed in the literature. Our results show that states with a higher per-capita number of financial advisors: 1.) Are more likely to restrict payday lending; 2.) Have lower maximum finance charges; and 3.) Have lower payday lending usage rates. We find the mean per-capita bankruptcy filing rate is higher in states that allow payday lending (4.63 filings per thousand individuals) versus states restricting payday lending (4.10 filings per thousand individuals); this difference is not statistically significant. We classify a state as allowing payday lending if there is no reasonable cap on maximum allowable interest rate. The maximum average allowable interest is 518% in states allowing payday lending compared with 47% for states restricting payday lending. Barth, Hilliard, Jahera, and Sun (2016) show a higher concentration of payday lending outlets in locations where there is little regulatory restriction on maximum finance charges. In a separate study, Barth, Hilliard, and Jahera (2015) show the concentration of payday lenders is higher in minority, younger age, and impoverished population areas. Bhutta, Goldin, and Homonoff (2016) studied whether regulation was effective in steering consumers away from high-interest payday lending and found it to be ineffective as it simply steered consumers to other forms of high-interest credit such as pawn shops. Friedline and Kepple (2017) also studied the efficacy of regulation and found some effectiveness for moderate and high-income groups but found no effect on low-income groups. (These findings suggest the need for mechanisms in addition to regulation to help solve problems associated with high-interest credit extension.) Servon (2017) extends the discussion by noting there are potentially negative (worse) consequences for consumers if no alternative lending options are available and the real solution is developing affordable alternative lending solutions. Nunez, Schaberg, Hendra, Servon, Addo, and Mapillero-Colomina (2016) studied online payday lending and found reduced usage of online payday lending in states with more stringent regu-

lations on brick-and-mortar payday lending. They also found defaults and loan rollovers were common, credit scores were low, and nearly two-thirds of borrowers used payday loans for regular expenses.

The indicator variable for payday lending in a regression of factors impacting bankruptcy filings did not exhibit any significant explanatory power. These findings suggest a weak link between payday lending and bankruptcy and are consistent with earlier studies such as Stoianovici and Maloney (2008). While studies such as Morgan, Strain, and Seblani (2012) and Skiba and Tobacman (2015) show some evidence of a link between bankruptcy filings and payday lending, we think bankruptcy incidence alone does not adequately capture the harmful effects of payday lending. Hynes (2010), for example, suggests bankruptcy is a poor measure of the harmful effects of payday lending since bankruptcy itself is costly and may not be a feasible alternative for those utilizing payday loans. Carrell and Zinman (2014) show how access to high-cost payday lending negatively impacts job performance among enlisted airmen. Melzer (2011) shows greater payday loan access results in more difficulty meeting mortgage, rent, and utility obligations. Our findings suggest financial advisors are an important channel for improving financial literacy in their communities. This suggests the financial advisor career field is more than an occupation; it is a vocation where professionals make a difference in their communities by helping people make sound financial decisions.

## **HISTORY OF USURY LAWS: A BIBLICAL PERSPECTIVE**

One of the primary functions of financial planners is to foster prudent debt management habits in clients and advocate financial literacy and consumer protection in their communities. Given the current wide social acceptance of debt, financial advisors may act as a modern equivalent substitute for historical implicit and explicit restrictions. To understand how the American debt situation has evolved, it is critical to understand the underlying social and regulatory landscape surrounding debt. Many of the foundations of early Western thought have their roots in faith teachings as there was little or no separation between state law and church law. For example, the Mosaic Law outlined in the Torah, the Old Testament Book of Exodus, and New Testament Book of Matthew prohibited Jews from lending money at interest to other Jews.

If you lend money to one of my people among you who is needy, do not be like a moneylender; charge no interest. If you take your neighbor's cloak as a pledge, return it to him by sunset, because his cloak is the only covering he has for his body. What else will he sleep in? When he cries out to me, I will hear, for I am compassionate. (Exodus 22:25-27)

The law did not prohibit Jews from lending to Gentiles. Conducting business in the Court of the Gentiles outside the Temple in Jerusalem was frowned upon, however. These activities included exchanging currencies to be used as an offering for a fee and extended to high-interest loans (Valeri, 2011).

Jesus entered the area and drove out all who were buying and selling there. He overturned the tables of the moneychangers and the benches of those selling doves. "It is written," he said to them, "My house will be called a house of prayer' but you are making it a 'den of robbers.'" (Matthew 21:12-13)

There are also biblical references to usury, defined here as excessive interest. The principles of usury and interest are discussed in the following passages from Ezekiel about a righteous man and his violent son and the parable of the talents in the book of Matthew. Halberg (2010) suggests these passages as a tool for connecting faith to the practice of paying and receiving interest.

He lends at usury and takes excessive interest. Will such a man live? He will not! Because he has done all these detestable things, he will surely be put to death and his blood will be on his own head. (Ezekiel 18:13)

Well then, you should have put my money on deposit with the bankers, so that when I returned I would have received it back with interest. (Matthew 25: 27)

As the influence of the Christian Church spread throughout Western Europe, the concept of usury evolved as well. Mosaic law forbade the charging of any interest on a loan to another Hebrew, but gradually the definition evolved to the charging of "excessive" levels of interest on debt. This cultural evolution has been noted by several authors, including Porter (1999), Elder (1999), Saunders (2016b), and Beed and Beed (2012). Kelly (1835) wrote about usury in England, saying, "Usury was at an early

period of our history invariably stigmatized by ecclesiastical writers as contrary to the divine law, and by the canons of the church it was forbidden and punished, as sinful and against scripture." The Church could punish usurers with excommunication and censure but the social disgrace of being charged with usury kept the practice illegal and underground. Eventually, the prohibition against usury was formalized into English law. As people began to understand the necessity of credit for the sake of commerce, usury laws were deemed harmful to trade. The Act Against Usury of 1624 passed Parliament, and usury was repealed and replaced with another law lowering the ceiling on interest from 10% to 8%. For the next hundred or so years, there was a constant battle between allowing interest and reverting to laws prohibiting usury. The recasting of money lending from a faith-based practice to an economic activity did not extend to Muslim countries where the practice of Riba (usury) is still prohibited (Dunn & Galloway, 2011).

As international trade and risky business ventures became vital to England's economic well-being, economists and religious leaders began to realize the economic potential of commerce financed by debt. Slowly, charging interest in business loans became acceptable in both social and religious circles. The rate of acceptance, however, was not uniform with a much slower rate of acceptance within the Catholic than Protestant faith (Valeri, 2011). Usury represented an economic revolution, and as commercial networks expanded across the world, they depended on an expanding number of instruments to transfer wealth, specifically notes of credit. In the United States, Protestant preachers like Cotton Mather discussed the necessity and convenience of credit, especially for trade. But, Mather strongly warned people against running into personal debt and always told his congregation to use extreme caution with credit. Other prominent Americans echoed similar sentiments, including Benjamin Franklin, who, in one of his writings about Father Abraham wrote, "He who goes a borrowing goes a sorrowing," and advised his readers against the loss of independence associated with being indebted (as cited in Calder, 1999).

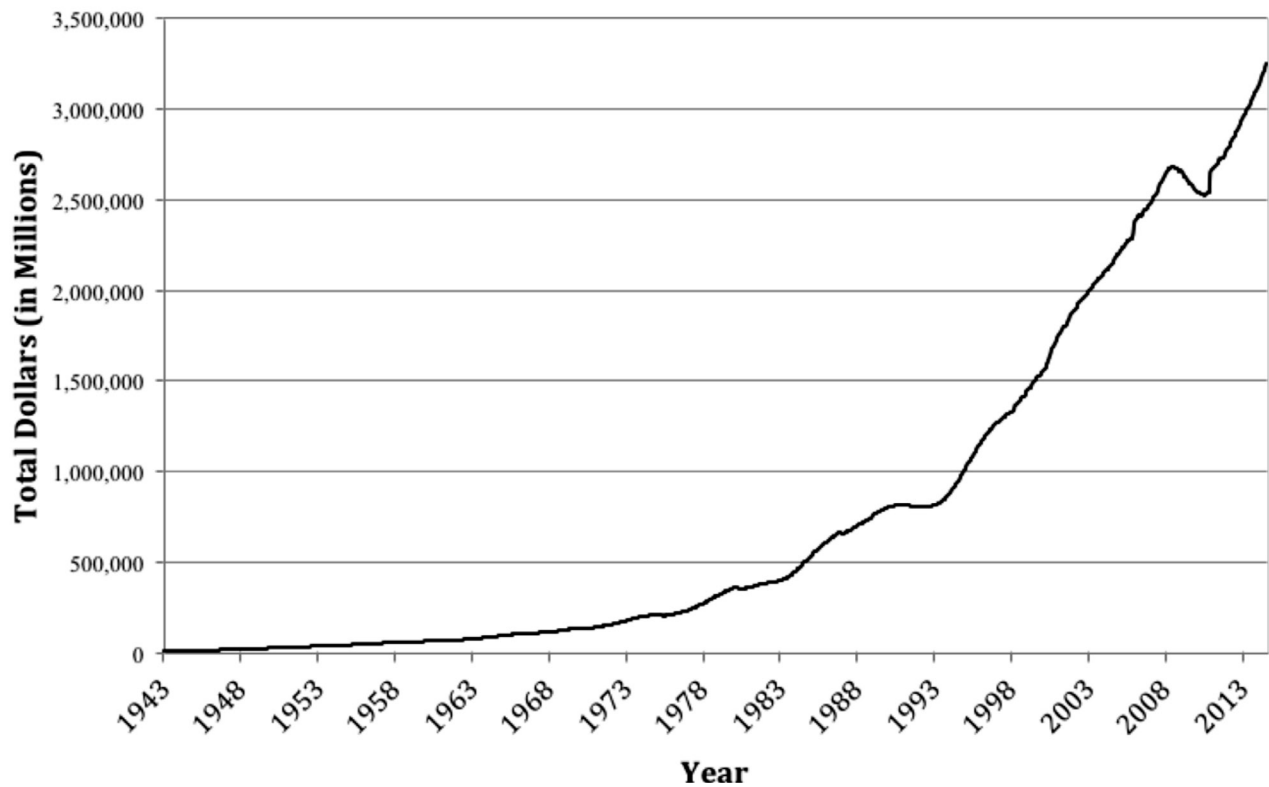
The way in which Benjamin Franklin portrayed personal debt in the days of colonial America was the way most people viewed personal debt in the United States up until the 20th century when a credit revolution of sorts took place. In the late 19th century, many Americans relied heavily on credit for their business ventures, especially farmers and entrepreneurs. However, Americans increasingly began taking out loans for large personal

expenditures, such as home purchases or when they were short on cash in times of financial distress. A large network of formal and informal lending sources arose, including pawnbrokers, illegal small-loan lenders, retailers, and mortgage lenders. It was estimated in 1858 that the nation's total household indebtedness, disregarding all the outstanding business debt, amounted to about \$1.5 billion, or \$300 per household in nominal (not inflation adjusted) 1858 dollar terms (Calder, 1999).

Consumer credit did not begin to take hold in the United States until the emergence of installment buying during the mid-20th century (Calder, 2002). Many consumer durables could be purchased on an installment plan, allowing an increasing number of people to have access to commodities of the American middle-class lifestyle. "From 1920 to 1926, the percentage of the nation's households who bought an automobile on the installment plan rose from 5.4% to 12.2%. By 1926 two of every three cars sold were bought on credit. Over the same period, outstanding consumer debt nearly doubled (in constant dollars), while household debt as a percentage of income rose from 4.68 to 7.25 percent" (Calder, 1999). After a slowdown in the assumption of credit following the Great Depression and World War II, the lifting of wartime restrictions on credit made consumers more willing than ever before to

use credit for household consumption. Logemann (2008) compared the different paths the United States and West Germany took regarding consumption after World War II and notes, "The older, bourgeois ideal of saving and deferred gratification appeared no longer compatible with the demands of an economy fueled by ever increasing purchasing power. Modern, middle-class citizenship now found its expression in 'rational' consumption and participation in the expanding consumer economy." Levels of consumer debt held by Americans in the postwar period rose rapidly with mortgages, car loans, and credit card debt making up a large percentage of outstanding debt. The rapid increase in the levels of outstanding consumer debt is evidenced by the growth in outstanding consumer debt levels spanning the years 1943 to 2013. For example, in 1973, total outstanding consumer credit was less than \$250 billion and by 2013 had grown to more than \$3.25 trillion. Consumer debt per capita grew from \$1,184 in 1973 to \$10,278 in 2013, a growth factor of 8.68 compared with a growth factor of 5.25 for inflation (Bureau of Labor Statistics, 2017). Peñaloza and Barnhart (2013) document how the guilt and social stigma associated with the use of credit by households and consumers has lessened over time.

**Figure 1: Levels of Outstanding Consumer Credit in the United States**



## THE RISE OF PAYDAY LENDING

Payday loans are short-term, unsecured loans typically made to individuals, typically for non-business purposes. The underlying concept is borrowers obtain an advance on their paycheck, and when they receive the paycheck, they sign it over to the lender. Industry reports in 2007 showed payday lenders had a customer base of 19 million borrowers making loans of \$50 billion per year and generating income from fees of just under \$9 billion (Kirsch, Mayer, & Silber, 2014). A typical payday loan is small in amount, usually less than \$500, extended for a two-week time period, and includes a fee of about \$15 per \$100 principal (Kirsch et al., 2014). This translates to a 391% annual percentage rate (APR). Despite disclosures required by the Truth-in-Lending Act (TILA), many critics of payday lending cite high rates of interest as a reason why these loans are predatory and should be prohibited or strongly regulated. Various articles on payday lending have provided insight into who uses this credit source and whether it is a beneficial or harmful form of credit. Aitken (2013), Kirsch et al. (2014), and Shih (2011) all examine the socioeconomic and regulatory environment in which payday lenders operate. Dobridge (2016) reports that households are improperly incentivized to use payday lending for short-term, unnecessary consumption.

When used as independent sources of debt for singular and unexpected cash needs, the concept of a payday loan seems valuable for borrowers with limited or constrained credit access. However, a great pitfall of payday lending is the option to rollover the loan for another two-week period, incurring more fees when the borrower is unwilling or unable to pay down the principal. This can wreak havoc on the borrower since the process is often used repeatedly and the borrower ends up paying much more in fees/interest than the actual principal of the loan. In fact, some studies have shown very few borrowers are able to repay their loan the first time due. According to the 2012 Pew Charitable Trust survey, the percentage of borrowers who thought they would be able to repay their loan when it fell due was as low as 14%. Approximately half of all borrowers refinance their loans at least 11 times, causing them to incur cumulative interest charges and fees (Kirsch, et al., 2014). The industry's business model actually relies heavily on these rollovers because interest and fees from loans repaid on schedule would not generate sufficient revenue to support the business. Van Drunen (2012) states, "A loan that is likely to lead to more accrued debt in the future is not a good way to show love and justice to a fellow human."

Financial planners can assist consumers in their communities by educating consumers and policy makers on how payday loans work, the effective interest rates on such short-term loans, and the potential for borrowers to dig severe and costly holes for themselves if payday loans are rolled over rather than repaid. Bertrand and Morse (2011) show that total borrowing amounts and rollovers of existing loans decrease when borrowers learn the true costs of payday loans (2011).

### Payday Lending Regulations Vary by State

Payday lending is currently regulated on a state-by-state basis. Some states have no laws in place regarding payday lending while others have tight limits on interest rates and fees. Several states have explicitly prohibited the practice while in others, payday lending is de facto prohibited because interest rate ceilings prevent the practice from being profitable. The states restricting payday lending are listed in Table 3 and have placed restrictions on payday lending and either eliminated the practice or put the interest rates and finance charges on an equal level with other non-subprime loans.

In the majority of these states, maximum finance charges on a 14-day loan have been capped at or below 36% APR. States with significantly lower APR ceilings, such as Georgia at 16%, Pennsylvania at 11%, and Vermont at 18%, have effectively eliminated the practice of payday lending and forced lenders to abide by the same small-loan laws as traditional financial institutions. Payday lenders have all but given up on operating in these states because they cannot cover operating costs under these terms. The aforementioned states are classified in this paper as "states that restrict payday lending." The remaining states allow payday lending practices and are classified as "states that allow payday lending." In these states, it is not uncommon to observe annual percentage rates higher than 200% and sometimes as much as 700% or more. Some of the remaining 32 states set a maximum fee on a 14-day loan, but the fees, when converted to annualized rates, are still exorbitant. Other states, like Idaho, Nevada, South Dakota, Utah, and Wisconsin, have no limits at all (Figure 2).

### Effect of Payday Lending on Consumer Bankruptcy

We gather data from the American Bankruptcy Institute (2014) on the number of personal bankruptcy filings by state for the years 2000 through 2011. Figure 3 shows the total number of non-business bankruptcy filings in the U.S. during this timeframe. The frequency

**Table 1: Per Capita Bankruptcy Filings & Maximum Finance Charges by state, 2000-2011**

Allow Payday Lending		Max Finance Charge	Restrict Payday Lending		Max Finance Charge
State	Filings	%	State	Filings	
Alabama	7.60	456%	Arizona	4.57	36% + 5% Fee
Alaska	1.75	520%	Arkansas	6.56	17%
California	4.09	459%	Colorado	4.97	45% + Fees
Delaware	3.39	No Max	Connecticut	2.85	30%
Florida	4.48	419%	District of Columbia	2.75	24%
Hawaii	2.56	459%	Georgia	7.45	16%
Idaho	5.16	No Max	Maine	2.87	261%
Illinois	5.48	403%	Maryland	4.73	33%
Indiana	7.26	390%	Massachusetts	2.74	23%
Iowa	3.35	433%	Montana	3.44	36%
Kansas	4.47	390%	New Hampshire	3.03	36%
Kentucky	5.79	459%	New Jersey	4.04	30%
Louisiana	4.86	780%	New York	3.12	25%
Michigan	5.62	390%	North Carolina	3.14	36%
Minnesota	3.16	390%	Ohio	6.14	28%
Mississippi	5.79	520%	Oregon	5.14	154%
Missouri	5.56	1950%	Pennsylvania	3.55	11%
Nebraska	4.05	459%	Vermont	2.37	18%
Nevada	7.76	No Max	<u>West Virginia</u>	<u>4.45</u>	31%
New Mexico	3.47	416%	<b>Average</b>	<b>4.10</b>	
North Dakota	2.73	520%			
Oklahoma	5.22	390%			
Rhode Island	4.07	260%			
South Carolina	2.64	390%			
South Dakota	2.79	No Max			
Tennessee	8.68	459%			
Texas	2.78	309%			
Utah	6.37	No Max			
Virginia	4.62	688%			
Washington	4.93	390%			
Wisconsin	4.30	No Max			
<u>Wyoming</u>	<u>3.38</u>	780%			
<b>Average</b>	<b>4.63</b>				

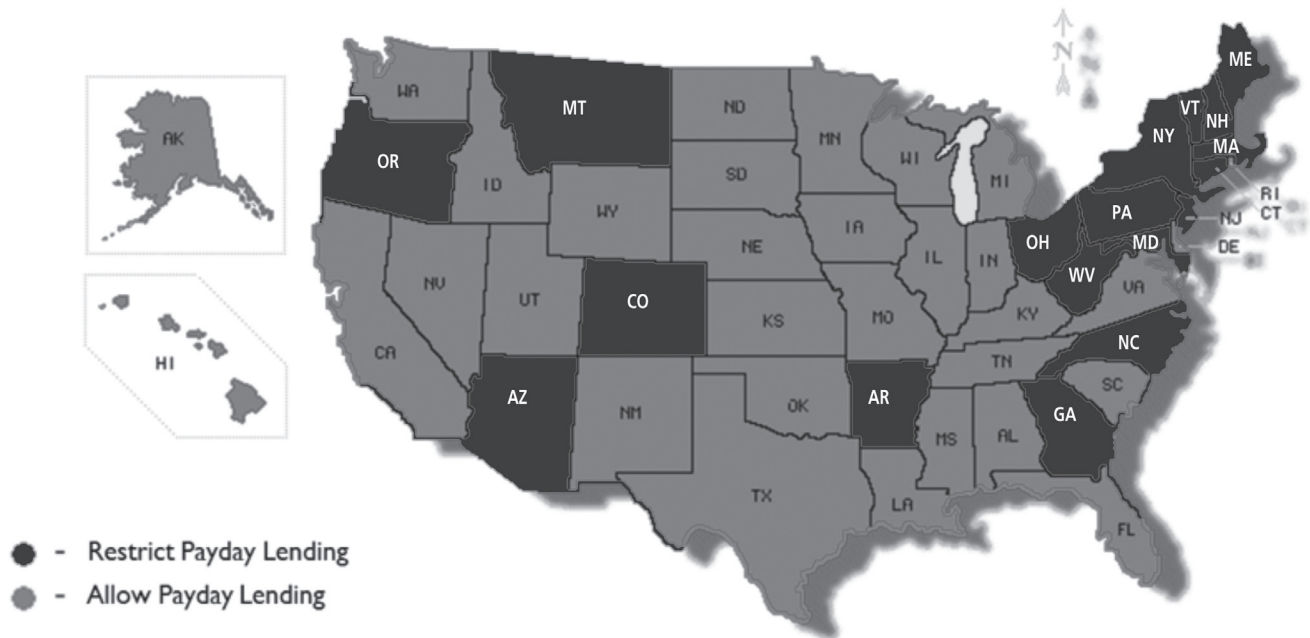
Source: Federal Reserve and [paydayloaninfo.org](http://paydayloaninfo.org).

of bankruptcy peaked in 2005 at just over 2 million. Preceding the 2007-2011 financial crisis, the bankruptcy level was declining; however, it increased during the financial crisis.

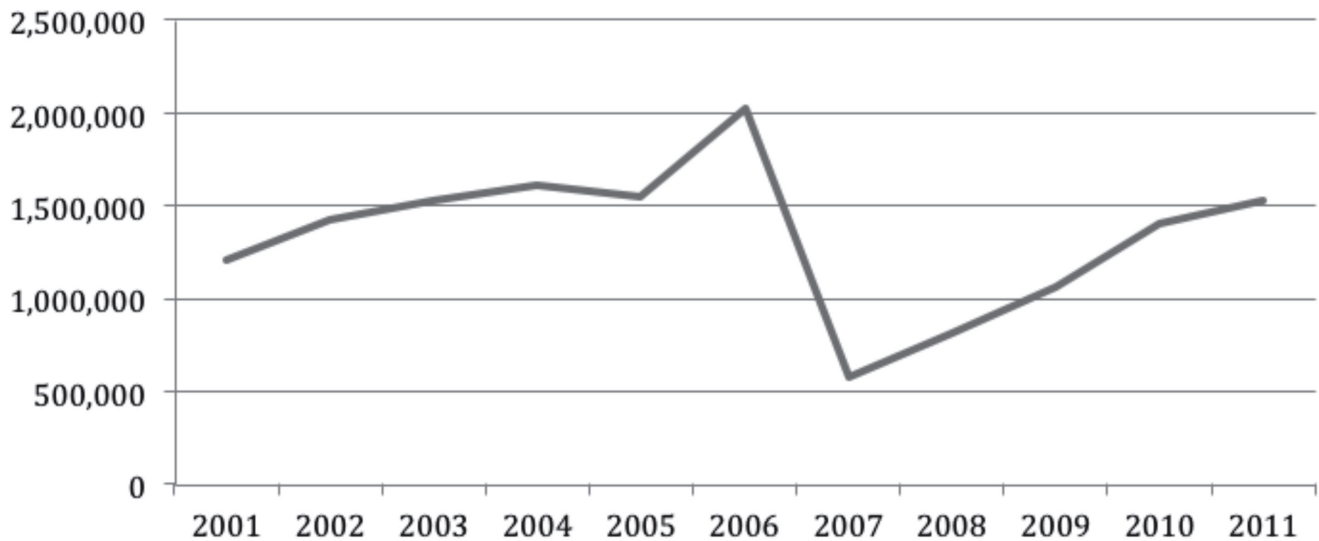
We calculate the number of non-business (i.e. personal) bankruptcy filings in a given state in a given year per thousand people, using state population from the U.S. Census Bureau (2012). We calculate an average bankruptcy rate per thousand people for the ten-year

time period for each state. We then group states into the two categories mentioned above—“states that allow payday lending” and “states that restrict payday lending.” The numerical results are summarized in Table 1. The data indicate that states allowing payday lending have somewhat higher mean rates of personal bankruptcy. However, a t-test of means shows these values are not statistically significantly different at conventional confidence levels (Table 2).

**Figure 2: Payday Lending in the United States**



**Figure 3: Personal Bankruptcy Filings, 2000-2011**



Summary statistics and a correlation matrix are reported in Tables 3 and 4 respectively.

We further explore the relationship between payday lending and consumer bankruptcy with a multivariate approach (Equation 1). We include control variables for per-capita financial advisor employment, unemployment

rate, household income, homeownership, and the per capita number of attorneys. The results suggest employment levels and household income, rather than payday lending, are more important for explaining consumer bankruptcy rates (Table 5). This is consistent with Bhutta’s (2014) study, which showed consumer financial health,

**Table 2: T-test of Mean Difference in Per Capita Bankruptcy**

Payday Lending	# States	Per Capita Bankruptcy Filings	Std. Error	t-stat	p-value
States Restricting	19	4.10%	0.00033		
State Allowing	32	4.63%	0.00029		
Combined	51	4.43%	0.00022		
Difference		0.05%	0.00046	-1.14	0.26

Note: 50 U.S. States and the District of Columbia.

**Table 3: Summary Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
1. Bankruptcy Rate (per 1,000)	51	0.004	0.002	0.002	0.009
2. Payday Lending Allowed	51	0.63	0.49	0.00	1.00
3. HS Grad Rate (%)	51	83.8%	3.9%	75.7%	89.7%
4. Bachelor's Degree (%)	51	25.5%	5.1%	15.9%	43.8%
5. Advanced Degree (%)	51	9.2%	3.0%	5.9%	24.1%
6. Home Ownership Rate (%)	51	68.7%	5.9%	43.1%	77.5%
7. Financial Advisors (per capita)	51	0.001	0.001	0.000	0.007
8. Attorneys (per capita)	51	0.003	0.008	0.000	0.052
9. Payday Usage Rate (%)	32	5.9%	3.0%	1.0%	13.0%
10. Max Finance Charge (%)	51	399%	386%	11%	1950%
11. Unemployment Rate (%)	51	5.7%	1.1%	3.4%	7.9%
12. Household Income (\$)	51	\$ 46,722	\$ 6,779	\$ 34,874	\$ 60,389

**Table 4: Correlation Matrix of Variables**

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Bankruptcy Rate (per 1,000)	1.00											
2. Payday Lending Allowed	0.16	1.00										
3. HS Grad Rate (%)	-0.06	-0.04	1.00									
4. Bachelor's Degree (%)	-0.40	-0.38	0.54	1.00								
5. Advanced Degree (%)	-0.36	-0.46	0.38	0.93	1.00							
6. Home Ownership Rate (%)	0.13	0.32	0.18	0.07	0.09	1.00						
7. Financial Advisors (per capita)	0.14	-0.28	0.00	0.26	0.31	0.06	1.00					
8. Attorneys (per capita)	0.21	-0.19	0.00	0.20	0.23	0.15	0.93	1.00				
9. Payday Usage Rate (%)	0.28	0.49	-0.12	-0.51	-0.56	0.04	-0.40	-0.21	1.00			
10. Max Finance Charge (%)	0.18	0.66	0.03	-0.27	-0.32	0.28	-0.33	-0.12	0.44	1.00		
11. Unemployment Rate (%)	0.11	-0.02	-0.35	-0.27	-0.21	-0.34	0.19	0.19	0.06	-0.10	1.00	
12. Household Income (\$)	-0.38	-0.29	0.55	0.88	0.82	0.07	0.11	0.07	-0.49	-0.14	-0.29	1.00

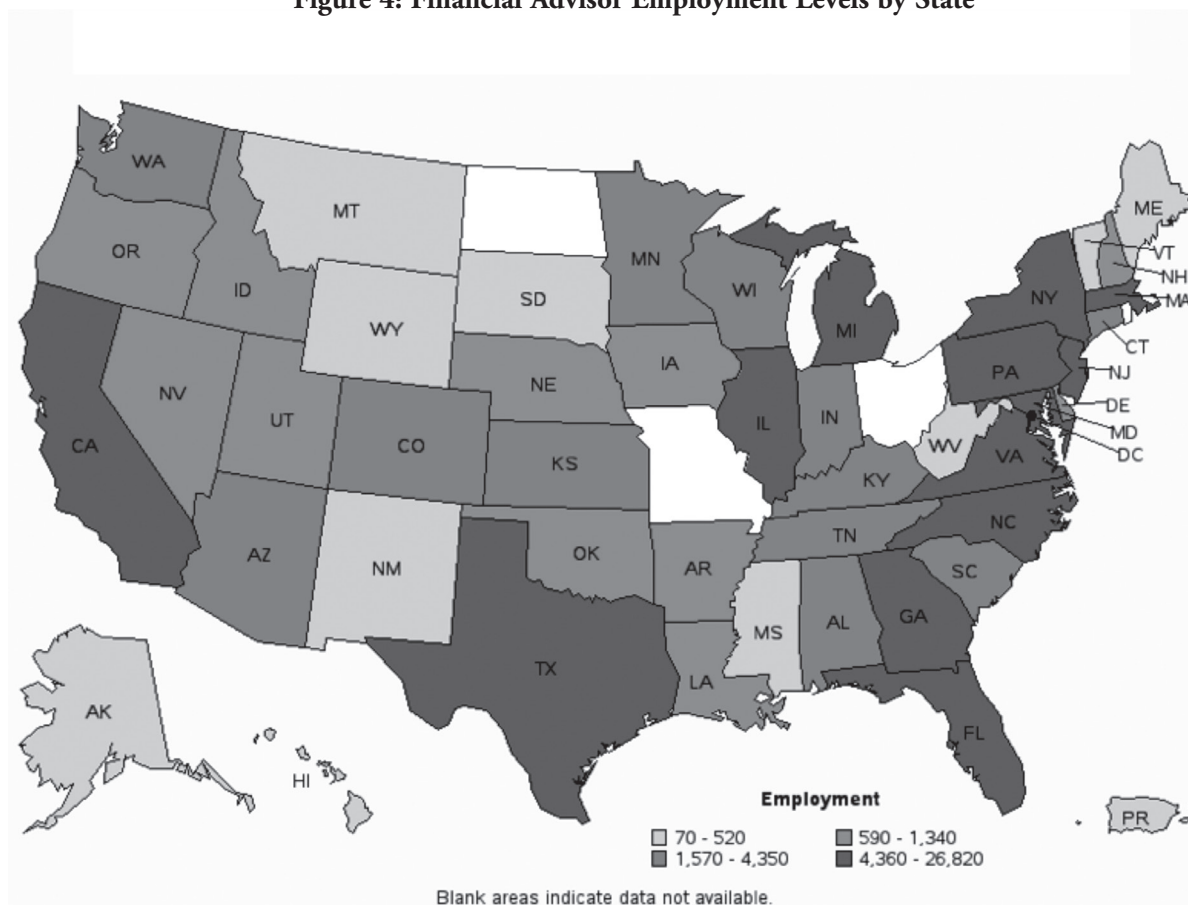


Table 5: Ordinary Least Squares (OLS) Model of Per Capita Bankruptcy

PerCapitaBankruptcy	Coef.	Robust		P>t	[95% Conf. Interval]	
		Std. Err.	t			
PerCapitaFinancialAdvisors	-0.15	0.19	-0.83	0.41	-0.53	0.22
Payday	0.0002	0.0006	0.28	0.78	-0.001	0.001
Unemployment	0.05	0.02	2.77***	0.008	0.01	0.09
HHI	.00	.00	-2.00**	0.05	-1.52E-07	7.69E-10
%HighSchoolEducation	0.007	0.008	0.86	0.39	-0.009	0.02
HomeOwnership	0.002	0.005	0.39	0.70	-0.008	0.01
PerCapitaAttorneys	-0.007	0.02	-0.29	0.77	-0.05	0.04
Constant	-0.002	0.007	-0.25	0.80	-0.02	0.01
Observations	51					
R2	.2333					

Note: \*\*\*, \*\*, \* indicate statistical significance at the 1%, 5%, and 10% levels respectively. We run the same regression with the Maximum Finance Charge as an independent variable and find similar results.

Figure 4: Financial Advisor Employment Levels by State



as measured by credit score and credit record outcomes, is not negatively impacted by payday lending. Equation 1 presents the Ordinary Least Squares (OLS) Model of Per Capita Bankruptcy.

$$(1) \text{ Per Capita Bankruptcy} = \alpha + \beta_1 \text{PerCapitaFinancialAdvisors} + \beta_2 \text{PayDayLending} + \beta_3 \text{Unemployment} + \beta_4 \text{HouseholdIncome} + \beta_5 \% \text{HighSchoolEducation} + \beta_6 \% \text{HomeOwnership} + \beta_7 \text{PerCapitaAttorneys} + \epsilon$$

### Role of Financial Advisor Employment Levels on Payday Lending

Next we seek to extend the literature on payday lending by exploring the effect financial advisor employment levels have on payday lending. Since payday lending is regulated at the state level, we gather data from the Bureau of Labor Statistics on the number of financial advisors in each of the 50 states and the District of Columbia (Figure 4).

We also gather data from the Bureau of Labor Statistics and U.S. Census Bureau from 2000-2011 on unemployment rates by state, household income by state, educational attainment by state, and homeownership by state. We examine the idea of usury (excessive interest rates) in payday lending with two methodologies. First, we estimate an ordinary least squares regression with the maximum finance charge as a continuous dependent variable and independent variables including per capita number of financial advisors, unemployment, household income, education level, homeownership, and per capita number of attorneys (Equation 2). Equation 2 presents the Ordinary Least Squares (OLS) Model of Maximum Finance Charges.

$$(2) \text{ Maximum Finance Charge} = \alpha + \beta_1 \text{PerCapitaFinancialAdvisors} + \beta_2 \text{Unemployment} + \beta_3 \text{HouseholdIncome} + \beta_4 \% \text{HighSchoolEducation} + \beta_5 \% \text{HomeOwnership} + \epsilon$$

We find states with a higher per capita number of financial advisors have overall lower maximum finance charges (Table 6).

Next, we design a probit regression model with payday lending as a binary dependent variable with the same set of independent variables (Equation 3). We define a state as allowing payday lending if there are essentially no caps on maximum allowable finance charges and define a state as restricting payday lending if the maximum finance charge is capped. Equation 3 presents the Probit Model of Payday Lending.

$$(3) \text{ Pr (Payday Lending)} = \alpha + \beta_1 \text{PerCapitaFinancialAdvisors} + \beta_2 \text{Unemployment} + \beta_3 \text{HouseholdIncome} + \beta_4 \% \text{HighSchoolEducation} + \beta_5 \% \text{HomeOwnership} + \epsilon$$

We find the per capital number of financial advisors is a statistically significant factor in explaining the probability of a state allowing payday lending. States with a higher per capita number of financial advisors are more likely to restrict rather than allow payday lending (Tables 7 and 8). The positive relationship between homeownership and payday lending is interesting. This is consistent with prior research that suggests access to payday lending may help consumers avoid events such as foreclosure (Bhutta, 2014).

### Payday Lending Usage Rates

The Pew Charitable Trusts launched the Safe Small-Dollar Loan Research Project in 2012 and in 2014 surveyed state level payday lending usage rates. The average

**Table 6: Ordinary Least Squares (OLS) Model of Maximum Finance Charges**

MaximumFinanceCharge	Coef.	Robust		t	P>t	[95% Conf. Interval]	
		Std. Err.					
PerCapitaFinancialAdvisors	-883.52	334.49		-2.64**	0.01	-1557.20	-209.83
Unemployment	0.41	46.78		0.01	0.99	-93.82	94.64
Household Income	-0.00007	0.00008		-0.92	0.36	-0.0002	0.00008
%HighSchoolEducation	9.82	14.16		0.69	0.49	-18.70	38.33
Homeownership	16.26	8.88		1.83**	0.07	-1.63	34.16
Constant	-11.50	12.11		-0.95	0.35	-35.90	12.90
Observations	51						
R2	.1353						

Note: \*\*\*, \*\*, \* indicate statistical significance at the 1%, 5%, and 10% levels respectively.

**Table 7: Probit Model of Payday Lending-Coefficient Estimates**

<b>Payday Lending</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>	<b>[95% Conf. Interval]</b>	
PerCapitaFinancialAdvisors	-528.56	300.84	-1.76*	0.08	-1118.19	61.08
Unemployment	5.21	21.94	0.24	0.81	-37.78	48.20
Household Income	-0.00003	0.00003	-0.96	0.34	-0.0001	0.00003
%HighSchoolEducation	-0.83	6.87	-0.12	0.90	-14.30	12.64
Homeownership	10.78	4.56	2.36**	0.02	1.84	19.71
Constant	-4.83	6.96	-0.69	0.49	-18.48	8.81
Observations	51					
Pseudo R2	.19					

Note: \*\*\*, \*\*, \* indicate statistical significance at the 1%, 5%, and 10% levels respectively.

**Table 8: Probit Model of Payday Lending-Marginal Effects**

<b>Variable</b>	<b>Marginal Effect</b>					
	<b>(dy/dx)</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>	<b>[95% Conf. Interval]</b>	
PerCapitaFinancialAdvisors	-200.55	116.55	-1.72*	0.09	-428.98	27.89
Unemployment	1.98	8.33	0.24	0.81	-14.35	18.31
Household Income	-0.00001	0.00001	-0.96	0.34	-0.00004	0.00001
%HighSchoolEducation	-0.31	2.61	-0.12	0.90	-5.42	4.80
Homeownership	4.09	1.76	2.32**	0.02	0.63	7.55
Observations	51					
R2	n/a					

Note: \*\*\*, \*\*, \* indicate statistical significance at the 1%, 5%, and 10% levels respectively.

**Table 9: Ordinary Least Squares (OLS) Model of Payday Lending Usage Rates**

<b>UsageRate</b>	<b>Coef.</b>	<b>Robust</b>		<b>P&gt;t</b>	<b>[95% Conf. Interval]</b>	
		<b>Std. Err.</b>	<b>t</b>			
PerCapitaFinancialAdvisors	-21.07	8.24	-2.56**	0.02	-38.02	-4.12
Unemployment	0.09	0.69	0.12	0.90	-1.34	1.51
Household Income	.00	.00	-3.84***	0.001	-3.97E-06	-1.20E-06
%HighSchoolEducation	0.10	0.13	0.79	0.44	-0.16	0.36
Homeownership	0.06	0.10	0.58	0.57	-0.15	0.27
Constant	0.07	0.16	0.4	0.69	-0.26	0.39
Observations	32					
R2	.3939					

Note: \*\*\*, \*\*, \* indicate statistical significance at the 1%, 5%, and 10% levels respectively.

state level usage rate is 5.5% with a low of 1% and high of 13%. We investigate the relationship between financial advisor employment levels and payday lending usage rates as a measure of financial literacy (Equation 4). We hypothesize financial advisors to be a source of financial literacy in their communities. Thus the higher concentration of advisors, the greater the financial literacy. Equation 4 presents the Ordinary Least Squares (OLS) Model of Payday Lending Usage Rates.

$$(4) \text{ Payday Lending Usage Rates} = \alpha + \beta_1 \text{PerCapitaFinancialAdvisors} + \beta_2 \text{Unemployment} + \beta_3 \text{HouseholdIncome} + \beta_4 \% \text{HighSchoolEducation} + \beta_5 \% \text{HomeOwnership} + \varepsilon$$

We find states with higher per capita financial advisor employment levels and higher household income levels have lower payday lending usage rates (Table 9). This could well be because higher income households have better access to alternative lending solutions and are more likely to employ a financial advisor than lower income households.

## CONCLUSION

This paper explores linkages between payday lending, consumer bankruptcy, macroeconomic variables, and financial literacy through the prevalence of financial advisors. The empirical results suggest the following conclusions. First, employment levels and household income provide stronger explanations for consumer bankruptcy rates than availability of payday lending outlets. Second, states with higher per capita financial advisors have lower overall maximum finance charges and are more likely to restrict payday lending. These findings suggest financial advisors have an important role in their communities advocating for better financial literacy of potentially harmful financial practices. It is important to recognize the financial advisor effect on financial literacy may be indirect, and future research should explore this.

## REFERENCES

Aitken, R. (2013). Finding the edges of payday lending. *Perspectives on Global Development and Technology*, 12(3), 377-409.

American Bankruptcy Institute. (2014). Annual business and non-business filings by year 1980-2014. Retrieved from <http://www.abi.org/newsroom/bankruptcy-statistics>.

Asher, A. (2015). *Working ethically in finance: Clarifying our vocation*. New York: Business Expert Press.

Barth, J. R., Hilliard, J., & Jahera, J. S. (2015). Banks and payday lenders: Friends or foes? *International Advances in Economic Research*, 21(2), 139-153.

Barth, J. R., Hilliard, J., Jahera, J. S., & Sun, Y. (2016). Do state regulations affect payday lender concentration? *Journal of Economics and Business*, 84 (1), 14-29.

Beed, C. & Beed, C. (2012). Jesus on lending, debt, and interest. *Journal of Biblical Integration in Business*, 17 (1), 77-86.

Bertrand, M., & Morse, A. (2011). Information disclosure, cognitive biases, and payday borrowing. *Journal of Finance*, 66(6), 1865-1893.

Board of Governors of the Federal Reserve System. (2014). G.19 release – consumer credit. Retrieved from [http://federalreserve.gov/releases/g19/HIST/cc\\_hist\\_sa\\_levels.html](http://federalreserve.gov/releases/g19/HIST/cc_hist_sa_levels.html).

Bhutta, N. (2014). Payday loans and consumer financial health. *Journal of Banking and Finance*, 47, 230-242.

Bhutta, N., Goldin, J., & Homonoff, T. (2016). Consumer borrowing after payday loan bans. *Journal of Law and Economics*, 59(1), 225-260.

Bureau of Labor Statistics. (2017). U.S. inflation rate. Available at <http://www.bls.gov>.

Calder, L. G. (1999). *Financing the American dream: A cultural history of consumer credit*. Princeton, N.J.: Princeton University Press.

Calder, L. G. (2002). *The evolution of consumer credit in the United States: The impact of public policy on consumer credit*. Ed. Thomas A. Durkin & Michael E. Staten. Boston: Kluwer.

Carrell, S., & Zinman, J. (2014). In harm's way? Payday loan access and military personnel performance. *The Review of Financial Studies*, 27(9), 2805-2840.

Consumer Federation of America. (2014). Payday loan consumer information: Legal status by state. Retrieved from <http://www.paydayloaninfo.org/state-information>.

- Dobridge, C. L. (2016). For better and for worse? Effects of access to high-cost consumer credit. Finance and Economics Discussion Series 20166-056. Washington: Board of Governors of the Federal Reserve System, <http://dx.doi.org/10.17016/FEDS.2016.056>
- Dunn, S. L., & Galloway, R. R. (2011). Islam, Islamic finance, and Christianity. *Journal of Biblical Integration in Business*, 14, 43-68.
- Elder, E. (1999) The biblical prohibition against charging interest: Does it apply to us? *Journal of Biblical Integration in Business*, Fall, 32-42.
- Friedline, T., & Kepple, N. (2017). Does community access to alternative financial services relate to individuals' use of these services? Beyond individual explanations. *Journal of Consumer Policy*, 40 (1), 51-79.
- Halberg, R. (2010). An interactive interest rate activity for financial management. *Christian Business Academy Review*, 5 (1), 37-39.
- Hynes, R. M. (2013). Does payday lending catch vulnerable communities in a debt trap? Virginia Law and Economics Research Paper No. 2010-08.
- Kelly, J. B. (1835). *A summary of the history of usury*. London: R.J. Kennett.
- Kirsch, L., Mayer, R. N., & Silber, N. I. (2014). The CFPB and payday lending: *New agency/old problem*. *Journal of Consumer Affairs*, 48(1), 1-16.
- Logemann, J. (2008). Different paths to mass consumption: Consumer credit in the United States and west Germany during the 1950s and '60s. *Journal of Social History*, 41(3), 525-559.
- Melzer, B.T. (2011). The real costs of credit access: Evidence from the payday lending market. *Quarterly Journal of Economics*, 126, 517-555.
- Morgan, D.P., & Strain, M. R. (2008). Payday holiday: How households fare after payday credit bans. Federal Reserve Bank of New York Staff Report No. 309.
- Morgan, D.P., Strain, M. R., & Seblani, I. (2012). How payday credit access affects overdrafts and other outcomes. *Journal of Money, Credit, and Banking*, 44 (2-3), 519-531.
- Nunez, S., Shaberg, K., Hendra, R., Servon, L., Addo, M., & Mapillero-Colomina, A. (2016). *Online payday and installment loans: Who uses them and why? A demand side analysis from linked administrative, survey, and qualitative interview data*. New York: MDRC.
- Pew Charitable Trusts. (2012). State payday loan regulation and usage rates: Pew safe small-dollar loans research project.
- Peñaloza, L., & Barnhart, M. (2013). Living U.S. capitalism: The normalization of credit/debt. *Journal of Consumer Research*, 38(4), 743-762.
- Porter, B.E. (1999). Charging interest: Is it biblical? *Journal of Biblical Integration in Business*, Fall, 43-46.
- Saunders, K.T. (2016a). Is there a difference between investing and gambling? A Christian perspective. *Journal of Biblical Integration in Business*, Fall, 57-71.
- Saunders, K.T. (2016b). Reconsidering usury in a world with negative interest rates. Working Paper, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2868764](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2868764).
- Servon, L. (2017). Are payday loans harmful to consumers? *Journal of Policy Analysis and Management*, 36 (1), 240-248.
- Shih, J. (2011). Payday lending: A thin line between love and hate. *Faulkner Law Review*, 3(1), 37-94.
- Skiba, P. M., & Tobacman, J. (2015). Do payday loans cause bankruptcy? Vanderbilt University Working Paper.
- Stoianovici, P. S., & Maloney, M. T. (2008). Restrictions on credit: A public policy analysis of payday lending. Working Paper available at <http://ssrn.com/abstract=1291278>.
- U.S. Census Bureau. (2012). Intercensal estimates of the resident population by sex and age for states. Retrieved from <http://www.census.gov/popest/data/intercensal/index.html>
- Valeri, M. R. (2011). The Christianization of usury in early modern Europe. *Interpretation*, 65(2), 142-152.
- Van Druenen, L.D. (2012). Finance for stewardship, love, and injustice. *Theology of Work Project, Inc.*, 1-20.
- Zinman, J. (2010). Restricting consumer credit access: Household survey evidence on effects around the Oregon rate cap. *Journal of Banking and Finance*, 34, 546-556.

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